

Application No. 10/650,062
Response to Office Action

Customer No. 01933

Listing of Claims:

Claims 1-5 (Canceled).

6. (Currently Amended) A laser scanning microscope comprising:

a first optical scanning system which scans a first laser light for observing a sample on the sample;

5 a first light branch device which ~~branches~~ separates a light from the sample from an optical path of the first laser light;

a at least one photodetector which detects the light from the sample separated by the first light branch device;

10 a second optical scanning system which irradiates a specific portion on the sample with a second laser light for stimulating or operating the sample; and

a wavelength selection device which is disposed between the first light branch device and the photodetector and which ~~includes~~ has a first function of transmitting a desired
15 observation light and a second function of limiting transmission of the second laser light.

7. (Currently Amended) The laser scanning microscope according to claim 6, wherein the wavelength selection device is comprises an interference filter.

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8. (Currently Amended) The laser scanning microscope according to claim 6, wherein a transmittance of the second laser light of the wavelength selection device is not more than 0.01% or less.

9. (Currently Amended) The laser scanning microscope according to claim 8, wherein the wavelength selection device comprises:

5 * at least one first interference filter which ~~includes~~ performs the first function; and

 * at least one second interference filter which ~~includes~~ performs the second function.

10. (Currently Amended) The laser scanning microscope according to claim 8, wherein the wavelength selection device ~~is~~ comprises an interference filter comprising:

5 a first interference coating, which ~~fulfills~~ performs the first function, on one surface of a substrate; and

 a second interference coating, which ~~fulfills~~ performs the second function, on ~~the other~~ another surface of the substrate.

11. (Original) The laser scanning microscope according to claim 8, wherein the second laser light is an ultraviolet or infrared light.

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12. (Currently Amended) The laser scanning microscope according to claim 7 6, wherein the wavelength selection device comprises:

5 ~~a~~ at least one first interference filter which ~~includes~~
~~performs~~ the first function; and

~~a~~ at least one second interference filter which ~~includes~~
~~performs~~ the second function.

13. (Currently Amended) The laser scanning microscope according to claim 12, wherein:

5 ~~the at least one photodetector comprises a plurality of~~
~~photodetectors and the at least one first interference filter~~
~~comprises a plurality of first interference filters; are~~
~~disposed,~~

 a second light branch device which splits the light from the sample toward ~~these~~ the photodetectors is disposed between the first light branch device and ~~photodetector, the photodetectors;~~

10 the second interference filter is disposed between the first and second light branch devices; ~~[[,]]~~ and

 the first interference ~~filter is~~ filters are disposed between the respective photodetectors and the second light branch device.

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14. (Original) The laser scanning microscope according to claim 12, further comprising:

a wavelength change section which changes a wavelength of the second laser light; and

5 a filter change section which changes the second interference filter in accordance with the wavelength of the second laser light.

15. (Currently Amended) The laser scanning microscope according to claim 7, wherein the ~~wavelength selection device~~ interference filter comprises:

5 a first interference coating which ~~includes~~ performs the first function; and

a second interference coating which ~~includes~~ performs the second function.

16. (Original) The laser scanning microscope according to claim 6, wherein the second laser light is an ultraviolet or infrared light.

17. (Currently Amended) The laser scanning microscope according to claim 16, wherein the wavelength selection device comprises:

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a at least one first interference filter which ~~includes~~
performs the first function; and

a at least one second interference filter which ~~includes~~
performs the second function.

18. (Currently Amended) The laser scanning microscope
according to claim 17, wherein:

the at least one photodetector comprises a plurality of
photodetectors and the at least one first interference filter
5 comprises a plurality of first interference filters; are
disposed,

a second light branch device which splits the light from the
sample toward ~~these~~ the photodetectors is disposed between the
first light branch device and ~~photodetector,~~ the photodetectors;

10 the second interference filter is disposed between the first
and second light branch devices; [[,]] and

the first interference ~~filter is~~ filters are disposed
between the respective photodetectors and the second light branch
device.

19. (Original) The laser scanning microscope according to
claim 6, wherein the desired observation light is a fluorescence
excited by the first laser light.